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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,619	01/30/2001	Hannu Heusala	P 276518 T299095US/PAK/he	8852
909	7590	03/26/2004	EXAMINER	
PILLSBURY WINTHROP, LLP P.O. BOX 10500 MCLEAN, VA 22102			PATHAK, SUDHANSHU C	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 03/26/2004

*[Handwritten mark]*

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/771,619

Applicant(s)

HEUSALA, HANNU

Examiner

Sudhanshu C. Pathak

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on January 30<sup>th</sup>, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 15-21, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 13, 14 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on January 30<sup>th</sup>, 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-to-24 are pending in the application.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-4, 8-9 & 18 are rejected under 35 U.S.C. 102(a) as being anticipated by Bullock et al. (WO 99/52220).

Regarding to Claim 1, Bullock discloses a data transmission system comprising a first transceiver (Fig. 1, element 101 & Fig. 2) and a second transceiver (Fig. 1, element 107 & Fig. 3), the system comprising receiving a broadband xDSL signal with the first transceiver (Fig. 1, element 105 & Abstract, lines 1-7); modulating a carrier with the received xDSL signal and transmitting the modulated signal over the air from the first transceiver to the second transceiver (Fig. 1, element 106 & Abstract, lines 1-7 & Page 4, lines 10-12 & Page 7, lines 1-5 & Page 8, lines 9-15); and further demodulating the modulated signal into an xDSL signal after reception (Fig. 1 & Page 7, lines 5-8).

Regarding to Claims 2 & 8, Bullock discloses Bullock discloses a data transmission system comprising a first transceiver (Fig. 1, element 101 & Fig. 2) and a second transceiver (Fig. 1, element 107 & Fig. 3), the system comprising receiving a broadband xDSL signal with the first transceiver (Fig. 1, element 105 & Abstract,

lines 1-7) from which the xDSL format was removed in the first transceiver (Fig. 1, elements 102, 103 & Page 6, lines 14-22 & Page 8, lines 15-20); modulating a carrier in the first transceiver with the signal whose xDSL format was removed and transmitting the modulated signal over the air to the second transceiver (Fig. 1, element 106 & Abstract, lines 1-7 & Page 4, lines 10-12 & Page 7, lines 1-5 & Page 8, lines 9-15). Bullock also discloses removing the xDSL format from the demodulated signal in the second transceiver and formatting it so as to be received by the desired device (Fig. 3, element 302-306 & Page 7, lines 5-20 & Page 9, lines 15-17).

Regarding to Claim 3, Bullock discloses Bullock discloses a data transmission system comprising a first transceiver (Fig. 1, element 101 & Fig. 2) and a second transceiver (Fig. 1, element 107 & Fig. 3), the system comprising receiving a broadband xDSL signal with the first transceiver (Fig. 1, element 105 & Abstract, lines 1-7) from which the xDSL format was removed in the first transceiver (Fig. 1, elements 102, 103 & Page 6, lines 14-22 & Page 8, lines 15-20); and transmitting the signal whose xDSL format was removed from the first transceiver either over the air or by cable to the second transceiver which can be disconnected from the first transceiver (Fig. 1 & Abstract, lines 1-7 & Page 7, lines 1-5).

Regarding to Claim 4, Bullock discloses a system of transmission of broadband xDSL data between multiple transceivers as described above. Bullock further discloses several simultaneous xDSL connections to be transmitted over the air from

the second transceiver to the first transceiver (Fig. 1, elements 109-112 & Abstract, lines 1-7 & Page 7, lines 11-20 & Page 9, lines 8-15).

Regarding to Claim 9, Bullock discloses terminal equipment comprising a transceiver for receiving an xDSL format signal from the air path and for transmitting an xDSL signal to the air path (Fig. 1-3); a part disconnectable from the transceiver for generating a xDSL format signal and for removing the format of an xDSL format signal received from the air path (Fig. 1, elements 102-103, 109-112); the part comprising a transceiver for receiving an xDSL format signal from the air path and for transmitting an xDSL signal to the air path (Fig. 1).

Regarding to Claim 18, Bullock discloses a data transmission system comprising a first transceiver (Fig. 1, element 101 & Fig. 2) and a second transceiver (Fig. 1, element 107 & Fig. 3), the system comprising receiving a broadband xDSL signal with the first transceiver (Fig. 1, element 105 & Abstract, lines 1-7); modulating a carrier with the received xDSL signal and transmitting the modulated signal over the air from the first transceiver to the second transceiver (Fig. 1, element 106 & Abstract, lines 1-7 & Page 4, lines 10-12 & Page 7, lines 1-5 & Page 8, lines 9-15); and further demodulating the modulated signal into an xDSL signal after reception (Fig. 1 & Page 7, lines 5-8) and a DSL block arranged to remove the xDSL format of the demodulated xDSL signal (Fig. 3, elements 302-306 & Page 9, lines 1-17).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock et al. (WO 99/52220) in view of Timbs et al. (5,243,593).

Regarding to Claim 5, Bullock discloses a system of transmission of broadband xDSL data between multiple transceivers as described above. However, Bullock does not disclose transmitting a signal to the radio path to detect the readiness of the first transceiver to start establishing a connection with the second transceiver.

Timbs discloses a method for an activation procedure implemented by a microcontroller interfacing a DSL transceiver so as to receive the status of the transceiver for initiating data transfer (Abstract, lines 1-16 & Column 1, lines 43-66 & Column 2, lines 1-21, 57-68 & Column 3, lines 1-16 & Column 4, lines 3-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that implementing the mechanism for detecting the status of a transceiver as described Timbs into the xDSL data transmission system as described in Bullock would prevent the loss of data to be transmitted and furthermore, prevent a re-transmission of the data thus preventing the reduction the data rate of the system.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock et al. (WO 99/52220) in view of Christie (6,298,064).

Regarding to Claim 6, Bullock discloses a system of transmission of broadband xDSL data between multiple transceivers as described above. However, Bullock

does not disclose the first transceiver transmitting to the second transceiver a signal comprising the telephone number and/or network address of the first transceiver.

Christie discloses a networking signaling protocol for transmission of control message between multiple users (Column 2, lines 9-35). Christie further discloses transmitting a call setup message signaling to set up a connection between multiple users (Column 2, lines 28-35). Christie also discloses transmitting various messages between users to further include the origination telephone number and/or origination network address (Column 4, lines 45-61 & Column 10, lines 60-67 & Column 13, lines 50-67 & Column 14, lines 1-22 & Column 16, lines 50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Christie teaches implementing a message signaling protocol to transmit the network address and /or telephone of the origination of the transmission between multiple users and this can be implemented in the xDSL protocol as described in Bullock so as to maintain the identification of the user transmitting the data between the transceivers.

7. Claims 7, 10-12, 15-17, 19-21 & 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock et al. (WO 99/52220) in view of Hylton (5,613,190).

Regarding to Claim 7 & 10-11, 15-16, Bullock discloses terminal equipment comprising a DSL block for removing the format of the xDSL-format signal received at the terminal (Fig. 1, elements 102, 103 & Page 6, lines 14-22 & Page 8, lines 15-20). Furthermore, Bullock discloses the line interface (Fig. 1, element 102) to receive signals from a multiple of different sources (Fig. 1, element 105), and not all

being xDSL or telephone service connections (Fig. 1, element 105 & Abstract, lines 1-7 & Page 6, lines 10-20). Bullock also discloses that the line interface (Fig. 1, element 102) in combination with the signal processor (Fig. 1, element 103) format the data so as to generate a xDSL signal to transmit the signal outside the terminal equipment (page 6, lines 10-23). Bullock further discloses the terminal equipment arranged to transmit and receive a voice signal and also a mobile telephone connection (Fig. 1-3, Abstract, line 1-7). However, Bullock does not disclose the DSL block to be disconnectable and comprising memory for storing the information in the deformatted signal.

Hylton discloses a system and method for transmitting interactive multimedia services to subscriber premises and distributed with a radio frequency signal (Abstract, lines 1-18 & Fig. 5-7). Hylton further discloses a ADSL interface for the subscriber equipment for communicating with the network equipment for data transmission purposes (Column 4, lines 15-27, 36-50 & Column 5, lines 55-65 & Column 7, lines 25-48, 65-67 & Column 8, lines 1-30 & Fig. 5, elements 100, 100a). Hylton further discloses the interface equipment to comprise memory for storing formatted/deformatted data (Column 7, lines 25-48). Hylton further discloses a display on the subscriber interface module so as to provide the subscriber multiple options in terms of the type of data and data details to be displayed (Column 6, lines 5-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Hylton discloses a xDSL interface terminal comprising memory for storing formatted/deformatted data and this can be implemented in the



interface component as described in Bullock so as to control the data rate and prevent the loss of data through the interface. Furthermore, it is obvious that the since Bullock allows for multiple format signals to be inputted into the base unit that depending on the type of the data received the other interfaces are disconnected so as to provide access to the desired interface.

Regarding to Claims 17, 21 & 24, Bullock discloses a data transmission system comprising a first and second transceiver (Fig. 1, elements 101, 107 & Fig. 2-3), the first transceiver further comprising a DSL block arranged to receive an xDSL signal and remove the xDSL format (Fig. 1, elements 101-103, 105 & Abstract, lines 1-7 & Page 6, lines 14-22 & Page 8, lines 15-20); the first and second transceiver comprise a connection means for connecting the two transceivers to each other and for disconnecting each other (Fig. 1, element 106 & Abstract, lines 1-7 & Page 1, lines 5-11 & Page 3, lines 5-18); the second transceiver is arranged to transmit information to the xDSL block of the first transceiver, the block being arranged to input information transmitted by the second transceiver (Fig. 1, elements 107-112 & Fig. 2). Bullock further discloses several simultaneous xDSL connections to be transmitted over the air from the second transceiver to the first transceiver (Fig. 1, elements 109-112 & Abstract, lines 1-7 & Page 7, lines 11-20 & Page 9, lines 8-15). However, Bullock does not disclose the DSL block to be disconnectable and comprising memory for storing the information in the deformatted signal.

Hylton discloses a system and method for transmitting interactive multimedia services to subscriber premises and distributed with a radio frequency signal

(Abstract, lines 1-18 & Fig. 5-7). Hylton further discloses a ADSL interface for the subscriber equipment for communicating with the network equipment for data transmission purposes (Column 4, lines 15-27, 36-50 & Column 5, lines 55-65 & Column 7, lines 25-48, 65-67 & Column 8, lines 1-30 & Fig. 5, elements 100, 100a). Hylton further discloses the interface equipment to comprise memory for storing formatted/deformatted data (Column 7, lines 25-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Hylton discloses a xDSL interface terminal comprising memory for storing formatted/deformatted data and this can be implemented in the interface component as described in Bullock so as to control the data rate and prevent the loss of data through the interface. Furthermore, it is obvious that the since Bullock allows for multiple format signals to be inputted into the base unit that depending on the type of the data received the other interfaces are disconnected so as to provide access to the desired interface.

Regarding to Claims 19 & 20, Bullock discloses a data transmission system comprising a first transceiver (Fig. 1, element 101 & Fig. 2) and a second transceiver (Fig. 1, element 107 & Fig. 3), the system comprising receiving a broadband xDSL signal with the first transceiver (Fig. 1, element 105 & Abstract, lines 1-7); modulating a carrier with the received xDSL signal and transmitting the modulated signal over the air from the first transceiver to the second transceiver (Fig. 1, element 106 & Abstract, lines 1-7 & Page 4, lines 10-12 & Page 7, lines 1-5 & Page 8, lines 9-15); and further demodulating the modulated signal into an xDSL signal.

after reception (Fig. 1 & Page 7, lines 5-8) and a DSL block arranged to remove the xDSL format of the demodulated xDSL signal (Fig. 3, elements 302-306 & Page 9, lines 1-17). Bullock further discloses transmitting the signal whose xDSL format was removed from the first transceiver either over the air or by cable to the second transceiver, which can be disconnected from the first transceiver (Fig. 1 & Abstract, lines 1-7 & Page 7, lines 1-5). Bullock further discloses the second transceiver arranged to transmit the signal to the first transceiver without the xDSL format over the air or through a connection means and the first transceiver arranged to receive the transmitted signal and format it as desired and to transmit it through the network (Fig. 1-3 & Page 7, lines 1-20 & Page 6, lines 8-23 & Page 8, lines 1-20 & Page 9, lines 1-17). However, Bullock does not disclose a server to transmit broadband data to the first transceiver.

Hylton discloses network architecture for transmitting and receiving data to and from the customer premise to the network and vice versa (Fig. 1, Fig. 3-4). Hylton further discloses a network server (Fig. 3, elements 403) providing data to a network transceiver (Fig. 4, elements 2151, 2147, 2145). Hylton further discloses each first transceiver is connected to the data transmission network with a cable (Fig. 2B, element 1215). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Hylton discloses a network architecture comprising a server and transceivers so as to provide data and receive data from the customer premise, this architecture can be interfaces with the subscriber base

unit as described in Bullock so as to provide a connection to various servers to transmit/receive data from multiple sources.

Regarding to Claim 12, Bullock discloses a system of transmission of broadband xDSL data between multiple transceivers as described above. However, Bullock does not disclose the DSL block to be disconnectable and comprising memory for storing the information in the deformatted signal.

Hylton discloses a system and method for transmitting interactive multimedia services to subscriber premises and distributed with a radio frequency signal (Abstract, lines 1-18 & Fig. 5-7). Hylton further discloses a ADSL interface for the subscriber equipment for communicating with the network equipment for data transmission purposes (Column 4, lines 15-27, 36-50 & Column 5, lines 55-65 & Column 7, lines 25-48, 65-67 & Column 8, lines 1-30 & Fig. 5, elements 100, 100a). Hylton further discloses the interface equipment to comprise memory for storing formatted/deformatted data (Column 7, lines 25-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Hylton discloses a xDSL interface terminal comprising memory for storing formatted/deformatted data and this can be implemented in the interface component as described in Bullock so as to control the data rate and prevent the loss of data through the interface. Furthermore, it is obvious that the since Bullock allows for multiple format signals to be inputted into the base unit that depending on the type of the data received the other interfaces are disconnected so as to provide access to the desired interface.

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock et al. (WO 99/52220) in view of Hylton (5,613,190) in further view of Christie (6,298,064).

Regarding to Claim 6, Bullock in view of Hylton discloses a system of transmission of broadband xDSL data between multiple transceivers as described above. However, Bullock does not disclose the first transceiver transmitting to the second transceiver a signal comprising the telephone number and/or network address of the first transceiver.

Christie discloses a networking signaling protocol for transmission of control message between multiple users (Column 2, lines 9-35). Christie further discloses transmitting a call setup message signaling to set up a connection between multiple users (Column 2, lines 28-35). Christie also discloses transmitting various messages between users to further include the origination telephone number and/or origination network address (Column 4, lines 45-61 & Column 10, lines 60-67 & Column 13, lines 50-67 & Column 14, lines 1-22 & Column 16, lines 50-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Christie teaches implementing a message signaling protocol to transmit the network address and /or telephone of the origination of the transmission between multiple users and this can be implemented in the xDSL protocol as described in Bullock in view of Hylton so as to maintain the identification of the user transmitting the data between the transceivers.

***Allowable Subject Matter***

9. Claims 13, 14 & 22 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sudhanshu C. Pathak whose telephone number is (703) 305-0341. The examiner can normally be reached (Monday-Friday from 8:30 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin, can be reached at (703) 305-4714.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to:

Crystal Part II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

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STEPHEN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600